

EXHIBIT 7



Tech Remarketers

Product Valuation Analysis

Supplemental & Rebuttal Report

Canaan AvalonMiner A10 Series
Crypto Mining Machine Investment

SBI Crypto Co. Ltd.
vs.
Whinstone US, Inc.



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Summary of Conclusions:

The following is a summary of my expert conclusions based on the timelines, documents and evidence considered. See Page 23 (Reference Documentation and Links) and Page 24 (Appendix).

- The AvalonMiner A10 series crypto miners purchased by Plaintiff, SBI Crypto Ltd (“SBI”), and hosted at Defendant, Whinstone US Co (“Whinstone”), were contaminated and abused such that their resale value was less than zero. No reasonable buyer would purchase these miners after reviewing their condition or auditing their reduced performance due to the extensive overheating and contamination that occurred during their usage at the Whinstone facility.
- Expert Product Valuations: Based on Key Timelines and AvalonMiner A10 conditions:
 - Had the new AvalonMiner A10 miners been offered for resale in Q3 2019, before their deployment at the Whinstone facility, their resale value would likely have covered all or most of their original \$15,000,000 cost. This is due to high market demand in Q3 of 2019.
 - Had these same new (unused and undeployed) miners been made available to the secondary market a year later in Q3 of 2020, they would have easily been resold for more than their original cost due to the supply chain constraints caused by the impact of COVID on manufacturing and supply of semiconductors. Additionally, Bitcoin values increased significantly doubling in value between Q3 and Q4 of 2020. The estimated value recovery on SBI’s investment on these mining machines would have exceeded \$22,500,000.
 - Further, if these same crypto mining machines were deployed into a hosting facility absent of the contamination exhibited at this facility and then made available for used equipment resale the following year in July of 2021, they would have easily captured at least two thirds (\$500+) of their original (\$750) costs or \$10,000,000+ due to these same factors.
 - The contamination and thermal throttling on SBI’s crypto miners and its components after deployment at Whinstone’s facility, rendered them unsellable to the secondary market, negating \$10,000,000+ in potential value recovery. The reasons include these factors:
 - After their operation at the Whinstone Facility, the AvalonMiner A10 miners would have required extensive cleaning where few buyers have the capabilities, experience, or financial interest, to consider the project. Particularly given that cleaning would not guarantee that these A10 miners would meet the minimum performance specifications at audit. Finally, no buyer would consider buying them as-is once they saw the pictures.
 - The AvalonMiner A10 miners have no resale value for scrap because the cost of logistics in retrieving and shipping the miners to a recycler would have exceeded any scrap value.
- The cost to SBI to replace the Compute Equivalency of 740 PH/s in Q3 of 2021 would have been approximately \$41,110,000 (see Page 19).
- The cost to SBI to replace the Compute Equivalency of 740 PH/s as of the date of this report is approximately \$54,074,000 (see Page 19).



Expert Witness Credentials:

A leader in the computer and electronic product secondary market, Mr. Schuler has over forty years of experience in information technology (IT), electronic test equipment and consumer electronics product resale throughout all phases of the product lifecycle. These include product returns management, refurbishment and remarketing, lease/rental returns management, service parts supply management, IT asset disposition (ITAD) at End-of-Use, data sanitization and destruction, and finally, product recycling at End-of-life. Recognized as a secondary market expert and innovator, Mr. Schuler's career achievements include creating the industry's first computer trade-in program (Apple), and the first shared revenue, product refurbishment and remarketing contract (Compaq). With over twenty years in sales, Mr. Schuler grew a \$17M company to \$105M in just five years, winning over \$250M in contracts for product remarketing, service parts supply and ITAD services. His clients included Apple, Compaq, Dell, Dell Financial Services, IBM, Best Buy, Circuit City, Fry's Electronics, Rent-A-Center, and RadioShack. In 2018, Mr. Schuler founded Veterans Alliance Resourcing "VAR", an R2v3 certified ITAD company and SDVOSB, later recognized as an Inc5000 company. He sold VAR in 2023 and started Tech Remarketers, subsequently serving as a consultant and Executive Vice President for eCircular, an ITAD and e-waste recycler (start-up) based in Houston. Mr. Schuler has been a speaker at dozens of industry conferences including CDLA, CompTIA, Warranty Chain Management, ITAD Summit, E-Scrap, UNEDA and GSDC.

Education:

US Marine Corps - Two Years of Advanced Electronic Calibration and Repair Tech Schools (USAF & USN) including Precision Measurement Electronics Laboratory (PMEL) at Lowry AFB, where he received intensive training in electronic circuitry and calibration, metrology, repair, and diagnostics of advanced electronic test equipment. Additional schools included US NAS Coronado and NAS Memphis. Later stationed at MCC-3 (Mobile Calibration Center) he served at the highest-level electronics calibration and repair facility in the military, supporting all Navy/USMC electronic test equipment standards for bases, ships and technical personnel in the Western US and Pacific.

Industry Affiliations:

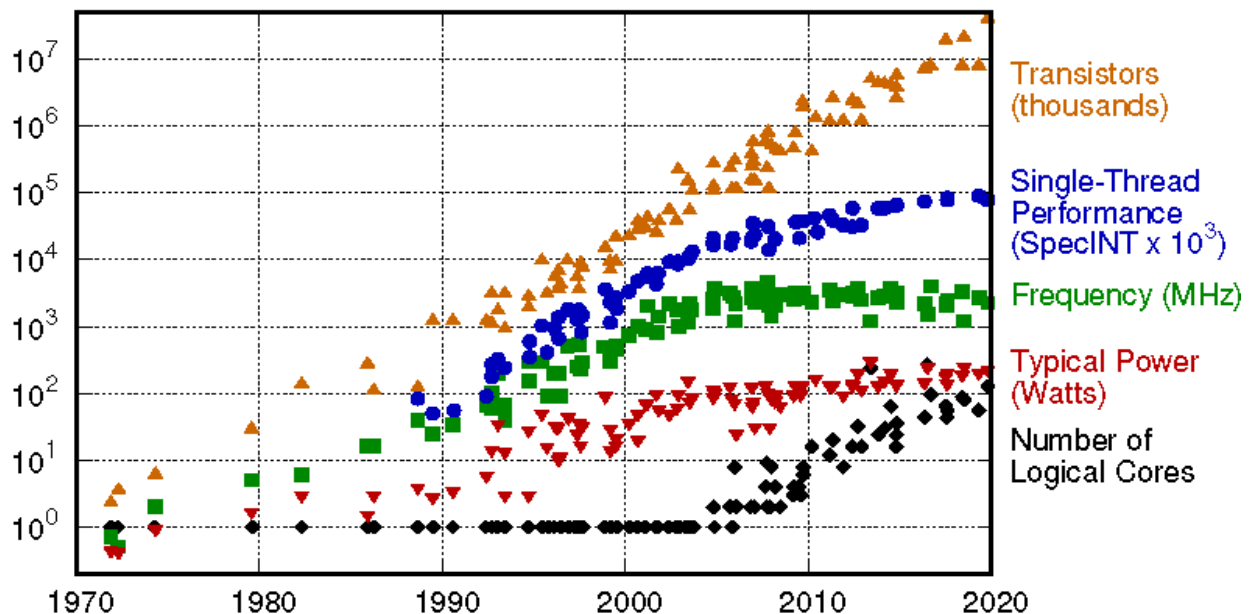
- CompTIA – Executive Council Chairman (2013) for IT Services & Support Community (Product Lifecycle Management) and Executive Council Member (2004-2013)
- CompTIA Ambassador (2011–Present). CompTIA Industry Award Winner (2008)
- AFSMI (Service Industry) – Texas chapter, founding board member.
- Member of ASCDI (IT Asset Disposition), ISRI (Recycling & ITAD) & RLA (Reverse Logistics)



An Introduction to the IT Secondary Market

The secondary market for information technology products has been well cultivated. Starting in 1970 with organizations like Computer Dealer Lessors Association aka CDLA (now ASCDI), product remarketers have been promoting the value of used IT hardware as whole (used) systems and as parts in support of service. With its origins in leasing, establishing product residuals allowed investment in expensive data center equipment with the knowledge that products could readily be resold in the secondary market at predictable values throughout the product lifecycle. The buyers for these used products were primarily resellers with end-user demand, and service companies that had those same products deployed at their customer sites. Buying used allowed IT departments to augment their existing infrastructure without retraining their staff while also servicing those same devices, often at a reduced cost, by securing (tested good) used parts acquired through their service providers. The factors that drove demand for secondary market material included the high cost of new systems, peripherals, and parts from the Original Equipment Manufacturer (OEM), the longevity of those products use within their intended application, and the sheer number of deployments (popularity) of the device. During the first two decades, the introduction of cheaper, faster, and better systems came at a predictably slow rate of every four years, as evidenced by Moore's Law (see the number of data points from 1970 to 1990).

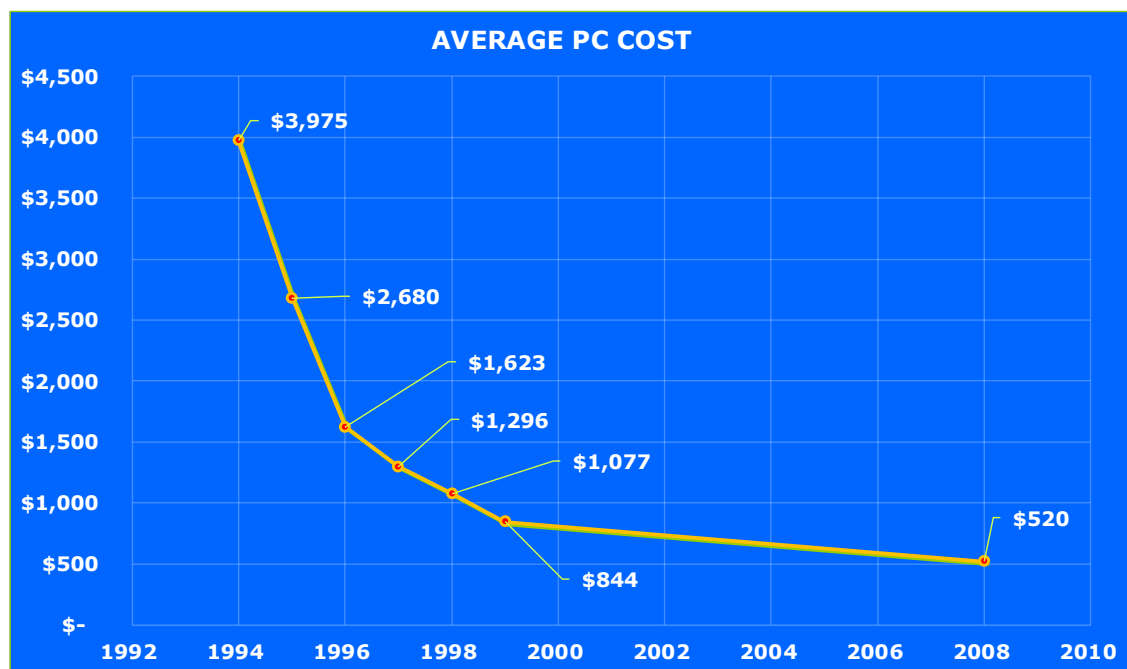
48 Years of Microprocessor Trend Data





This all began to change in the mid-90's as demand for personal computers and mobile devices accelerated the production of new, faster, and cheaper Central Processing Units (CPUs). In 1994, the average price for a personal computer was just under \$4,000. By 1999, the average price had dropped to \$844 and by 2008, it dropped to \$520 with the adoption of Chromebooks and tablets.

Lessons from the PC Industry



Prior to 1994, the average new product introduction cycle for PCs averaged 24 months. After 1994, the average new product introduction averaged just four months. Coupled with increasing demand spawned by competition and lower prices, the PC industry specifically provided lessons in how the secondary market operates as OEMs began to partner to leverage the material processing, parts supply management and product remarketing experience within the industry. This is best illustrated by the fact that product return value recoveries jumped from 10% of original cost in 1994 to 73% by 1999, recovering hundreds of millions of dollars that were previously missed. Today, a used “Remanufactured” Apple computer, sells for 90% of retail price, well over Apple’s original cost. Our industry was instrumental in helping OEMs learn how to capture additional dollars and market share through product refurbishment, parts harvesting, trade-in programs and remarketing.



Lessons from the PC Industry



- **Pressures on PC Industry are Unprecedented**
- **1993 - IBM Posts \$5 Billion Dollar Loss**
- **1994 – 1999 Margins on PCs drops from 40% to <9%**
- **1994 – 1998 Average PC Price drops from \$3975 to \$1077 (a 73% Drop in Price in just Four Years)**
- **1996 – Apple Posts \$740 Million Dollar Loss for Quarter**
- **1997 – Apple Posts \$1 Billion Dollar Annual Loss**
- **Focus on Product Returns Management and Customer Satisfaction drives Improvements in Recovery and Reductions in Warranty Expenditures**
- **Outsourcing to Secondary Market Vendors for Post-Warranty Parts Supply is <10% ('94), >60% in ('04)**
- **1999 - Average Recovery on Returns Increases to 73%**

Traditional Lifecycle Valuations by Product Type

The factors that dictate a product's viable lifecycle and the corresponding value recovery include:

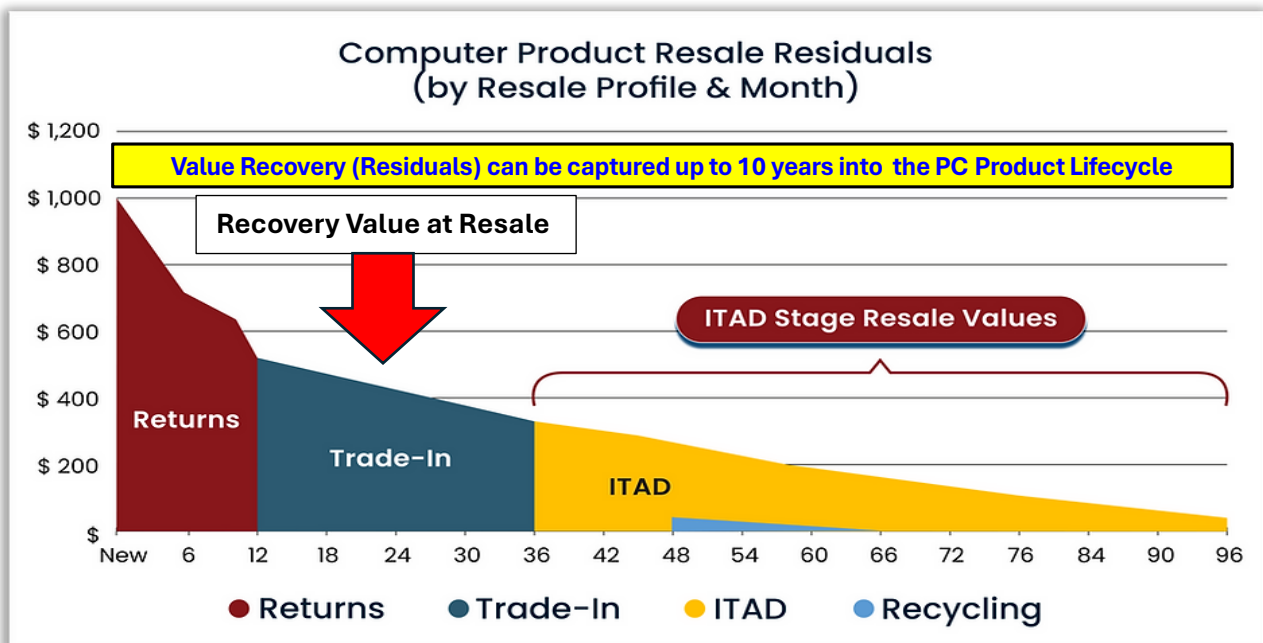
- Original cost (higher costs = longer lifecycles). Items <\$200 are often deemed consumable.
- Recognition of the OEM and product name and total quantity of products sold/deployed.
- A product's specialized functionality, features, and utility to perform its designated functions.
- The product's cost-efficiency, as compared to new products, in performing those functions.
- The costs related to service, repair, parts, and support of software/firmware upgrades.
- The condition of the product at End-of-Use and/or End-of-Life.
- The cost of decommissioning, logistics and service required to prepare the product for resale.
- The services required and associated costs to mitigate risks related to data management and environmentally responsible recycling.



Using these criteria, it's easy to see why certain items have a useful lifecycle of decades, while other products have lifecycles measured in months. Example: General Purpose Electronic Test Equipment often has a lifecycle of between twenty to as much as forty years. The primary reason is that the technology used in Digital Oscilloscopes, Signal Generators, Spectrum Analyzers, and similar test equipment, has not evolved significantly since they were created in the labs of engineers and scientists like Bill Hewlett and Dave Packard of Hewlett-Packard fame. It also has a high cost. Even so, rental/lease companies still reliably project residual values of better than thirty percent (30%) of original cost, decades after the product's initial purchase and deployment.

Personal Computer lifecycles average between six and ten years, while servers, data storage and networking devices have shorter lifecycles of between three to six years.

The Product Lifecycle of Personal Computers



Product Lifecycle of ASIC Crypto Miners

ASIC (Application-Specific Integrated Circuit) miners, due to their specialized nature, rapid obsolescence, and limited alternative uses, typically have a shorter, accelerated lifecycle with low residual value after five years. Once outdated, their resale value drops dramatically. The exception is during the period when they are considered viable, which typically spans the first three years of the product lifecycle.



Factors Affecting Demand and Resale Value of ASIC Crypto Miners

- **Rapid Depreciation** - Newer, more efficient ASIC models are released frequently, causing older models to lose profitability and resale value quickly.
- **Specific Design** - ASICs are built to mine specific cryptocurrency algorithms, limiting their versatility and reutilization potential.
- **Crypto Market Demand and Volatility** - Higher demand for a specific cryptocurrency e.g., Bitcoin, Ethereum or Tether, directly increases the demand and resale value of its ASIC miners as new crypto miners often buy used models to avoid the high upfront costs of new units. The resale value of ASIC miners is also linked to their cryptocurrency market value fluctuations.
- **Hash Rates** - Newer units with higher hash rates retain more value compared to older models.
- **Energy Use** - The cost of energy use is a major factor in the operation of Crypto Miners. Regions with low electricity costs have increased demand for used ASICs, slightly increasing their value.
- **OEM Brand and Model Reputation, and Deployment Volumes** - Well-known manufacturers have higher resale value than lesser-known brands. Additionally, in cases where deployment volumes are significant, as buying secondary market “used” units becomes a viable option.
- **Mining Difficulty** - The difficulty of mining changes based on the number of active miners. Higher difficulty can lower the resale value of older ASIC miners due to reduced profitability.
- **Technological Innovations** - Continuous advancements result in newer, more efficient mining hardware, impacting the resale value of older ASIC models.
- **Warranties** - OEM warranty enhances the resale value of ASIC Miners by up to twenty percent.
- **Maintenance and Condition** - The resale value is higher for well-maintained ASIC miners in good condition compared to those that are cosmetically or physically damaged. ASIC miners that exhibit environmental related damage from smoke, heat, water/humidity damage, evidence of insect or rodent inhabitation, dirt, or other contaminants, can dramatically devalue these units to zero resale value, requiring them to be earmarked for recycling. Further, units that have been worked continuously hard, generating high heat and instances of thermal throttling, can wear out ASIC Miners much quicker as evidenced by their reduced hash rate performance.

Average Cost of an ASIC Miner

ASIC miners, which are designed for specific mining algorithms and built with advanced semiconductor chips and cooling systems, come with a wide variety of features and corresponding costs for manufacturing. Their average price ranges from \$700 to \$30,000 or more, depending on technical specifications and the popularity of the target cryptocurrency.



Why ASIC Miners are Essential in Crypto Mining

Crypto mining requires significant energy and computational power to solve cryptographic puzzles and mine cryptocurrencies efficiently. Specialized hardware like ASIC miners, which are algorithm-specific and capable of solving puzzles faster, are essential.

Advancements in ASIC Technology in 2019

In 2019, the best Bitcoin miners witnessed advancements in ASIC technology in the form of better hash rates as well as energy consumption efficiency which had become important for competitiveness. Regardless of whether miners chose the Bitmain Antminer S17 Pro, MicroBT's Whatsminer M20S, or the Canaan AvalonMiner 1066, it was necessary to turn these models for achieving the best cost-benefit ratio in mining, given the rapid developments in the industry.

Top ASIC Crypto Miners of 2019

2019 ushered in a transformative era for Crypto mining hardware. The arrival of cutting-edge ASIC miners revolutionized the landscape, delivering unprecedented hash rates and remarkable energy efficiency. These technological marvels empowered miners to elevate their profitability and maintain a competitive edge in this ever-evolving industry. Below, you will discover three standout Bitcoin miners of 2019, along with details of their unique features, profound impact, and the reasons they became indispensable for successful mining ventures.

Description: The Bitmain Antminer S17 Pro set the gold standard for Bitcoin mining in 2019. Equipped with BM1397 7nm chips and designed to support the SHA-256 algorithm, specifically targeting BTC (Bitcoin), it delivers a maximum hash rate of 53 Th/s while consuming only 2094W of power, resulting in an energy efficiency of 0.04J/Gh. This provides miners exceptional performance and energy efficiency. Its flexible performance modes allowed operators to adjust hash rates based on electricity costs, providing a strategic advantage in optimizing returns. This combination of power and efficiency made it a top choice for professional miners.

Bitmain Antminer S17 Pro



Manufacturer: Bitmain

- Release Date: April 2019
- Hash Rate: 50 TH/s to 56 TH/s
- Power Consumption: 2,100W to 2,800W (depending on performance mode)
- Chip Type: BM1397 7nm ASIC
- Efficiency: 0.029 J/GH

Price in 2019: Around \$2,000-\$2,500



Description: The **Whatsminer M20S** from MicroBT offered an ultra-high hash rate of 68 TH/s, making it one of the most powerful options available in 2019. While its power consumption was higher than the S17 Pro, its impressive performance made it a favorite for large-scale operations where production volume was key. MicroBT's reputation for quality assurance and the M20S's robust design helped the Whatsminer series gain significant traction among mining professionals.



Manufacturer: MicroBT

- Release Date: August 2019
- Hash Rate: 68 TH/s
- Power Consumption: 3,360W
- Chip Type: 12nm ASIC
- Efficiency: 0.048 J/GH

Price in 2019: Around \$2,400-\$3,000

Manufacturer: Canaan Creative

- Release Date: September 2019
- Hash Rate: 50 TH/s
- Power Consumption: 3,250W
- Chip Type: A3205 16nm ASIC
- Chip Count: 342
- Efficiency: 0.065 J/GH

Price in 2019: Around \$1,260 and \$1,299



Description: The **Canaan AvalonMiner 1066** provided a budget-friendly alternative for miners seeking steady performance. Its 16nm ASIC chip offered reliability and a hash rate of 50 TH/s, making it suitable for those willing to prioritize affordability over cutting-edge energy efficiency. The AvalonMiner 1066 was especially popular among miners with longer ROI horizons, keeping Canaan's Avalon series relevant in the market.



Model Acquired by SBI (40k Units)

Manufacturer: Canaan Creative

- Release Date: April 2019
- Hash Rate: 31 TH/s
- Power Consumption: 1,735W
- Chip Type: A3205 16nm ASIC
- Chip Count: 240
- Efficiency: 0.065 J/GH
- Efficiency Ratio: 56w/TH
- Fans: (2) 12038 12V 2.7A PWM

Price in 2019: SBIC paid \$750.

Test Summary (Eastshore)

- A10 miner adopts solid materials and AvalonMiner 16nm A3205 chip. It's very uncommon for the 16nm miner to achieve such a low power consumption ratio.
- The test result of hash rate is 31.2T, which is slightly higher than the official value of 31T. The power consumption 1850W is also within the official value of 1736W (0% ~ +15%).
- The design of integrated power supply facilitates the maintenance on mining farms.
- Unique Raspberry Pi cluster control increases the management efficiency on large-scale mining fields.
- After 24 hours of testing, the power consumption of hash rate is stable with less fluctuations.
- Noise and temperature are well controlled, and the noise level is within acceptable limits.
- Accessories such as Raspberry Pi and USB cables need to be purchased separately.

Canaan AvalonMiner A1041





GPU Vs. ASIC for Crypto Mining

Although GPU mining may be more flexible in theory, allowing miners to switch between different crypto currencies, they lack the efficiencies of ASIC mining. ASICs are specialized and dedicated mining equipment designed for specific coins, solving Proof-of-Work problems faster than GPUs. An additional benefit is that ASIC Miners are often less expensive, allowing a lower cost of entry.

Major OEM vs. Generic OEM Product Valuations

OEM brand and model recognition are essential for capturing strong resale residuals throughout the product lifecycle. For products that run on CPUs (Central Processing Unit), the world of personal computers is led by Lenovo, HP, Dell, and Apple which hold over 65% of the market, while Dell, HP, Supermicro, Inspur, and Lenovo command about 50% of the market for servers. For GPUs (Graphics Processing Unit), only three companies hold the market with Nvidia at 56%, AMD at 26% and Intel at 18%. For the manufacturers of ASIC Mining Machines, Bitmain Technologies, Canaan Creative, Ebang and MicroBT are the industry leaders. Used products sold in the secondary market from these top-tier manufacturers command higher recovery values as they are well-known and accepted commodities. Lesser known (Generic manufacturers) fare worse in the secondary market as their name-recognition ranges from modest to non-existent. Further, incremental sales of tested good, used units, for additional “whole” unit deployment, is much rarer. Demand for these units and their components for service support (of other deployed assets), is also significantly lower as the number of sold assets of that model, aka market share, is significantly less than that of the leading OEM brands. When there’s little demand for a given brand in the new product market, there is even less demand for older used products from that same manufacturer. These products are relegated to be scrapped or sold for their component value (if any), as the components inside most machines, Major OEM or Generic OEM, tend to come from the same parts manufacturers.

Product Valuation During COVID - The Impact of Supply Chain Constraints on Semiconductors

From early 2020 until early 2023, COVID-19 had a major impact on the supply chain for semiconductors. During this period, demand for working machines and their key components soared. It was not unusual to see a new Computer, Server or GPU card, sell for over 300% of the established MSRP. In the secondary market, we saw same-item sales in 2020 transact at 225% of their corresponding 2019 sale price. Factoring in the natural depreciation curve for used computers of about 3% per month, this meant that same-item prices for a computer that sold in 2019 at \$100, had an effective value of \$260 a full year later. This trend continued through 2022 leading to some of the highest profits ever posted by companies in the ITAD market as we processed and sold used IT gear acquired from corporations, businesses, schools, institutions, and government agencies. We even saw significant increases in liquidated and auctioned assets, as business closures increased.



Bill-of-Material (Parts) and Corresponding Resale Value

From 1960 to 1990, parts demand for server components gave rise to a fledgling secondary market for computers. From 1985 through 1998, PC parts values were sufficient to justify buying whole units that could be disassembled and sold for parts to the PC service market. Even with tech handling and inventory holding costs, parts netted profits of over 140% of the corresponding unit resale price. During this period, there was a thriving market to supply parts to major retailers, service companies, and third-party warranty companies in support of post-warranty and extended-warranty service contracts. This dynamic began to change when the average price of a computer dropped from \$3975 (in 1994) to \$844 (in 1999). It was no longer prudent to buy a whole unit in order to sell a component like a system board, CPU, or hard drive.

For ASIC Miners, there is resale value in the chips and the power supply, however when you factor in the tech labor and equipment required for extraction, it's rarely sufficient to warrant disassembly as the whole unit's resale value is generally stronger than the net sum (less costs) of its parts.

Product Valuation (New) for the Canaan AvalonMiner A1041 Investment

The screenshot shows the ASIC Network website. The header includes the ASIC Network logo, a 'View Cart' button, a search bar, and social media links. The breadcrumb trail reads: Home > Canaan Avalon > ASIC Canaan Avalon 1066 Used.

Good As Gold Pricing
One convenient price that includes **shipping and tariffs**. Have your ASIC Miners picked, packed and shipped to your door with the convenience of our DDP (Delivered Duty Paid) program. The no-hassle way to buy ASIC miners in North America. That's right, we cover ALL shipping and tariffs costs and fees. Each product is priced for your convenience to include these costs on our end. One simple price to have you up and running right away.

ASIC Canaan Avalon 1066 Used
\$3,560.05 \$2,848.04

Model ASIC Canaan Avalon 1066 from Canaan mining SHA-256 algorithm with a maximum hashrate of 50Th/s for a power consumption of 3250W.

SKU: ASIC1024
Category: Canaan Avalon
Tag: Asic Miner

Out of stock

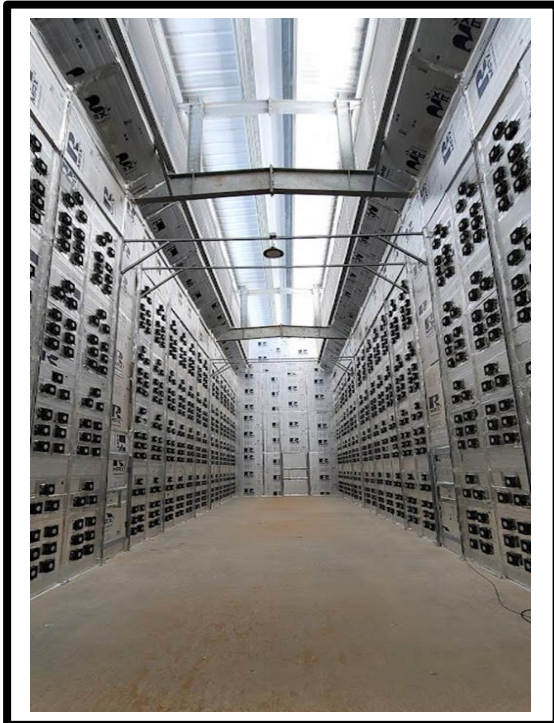
Navigation tabs: Description, Additional Information, Reviews (0)



As evidenced by this ad from a used Crypto Miner dealer – ASIC Network (see [ASIC Canaan Avalon 1066 Used - ASIC Network](#)), during the years of COVID, used equipment dealers actively sold “used” ASIC Miners like the Canaan Avalon 1066 for strong recovery values. More importantly, if the Canaan Avalon A1041 units had been offered as new during these years when availability of ASIC Miners were significantly constrained due to supply chain challenges in the semiconductor market, it is reasonable to assume these machines could have easily garnered the original cost of \$750 (or more). During this time, the value of Bitcoin soared from a low of \$6,569 in November of 2019, to a high of \$68,789 in November of 2021. Since these machines were designed specifically to mine Bitcoin, the ROI would have justified a purchase at full price, even this late (2 years) into the lifecycle, given the lack of available products for purchase and the increased value of Bitcoin.

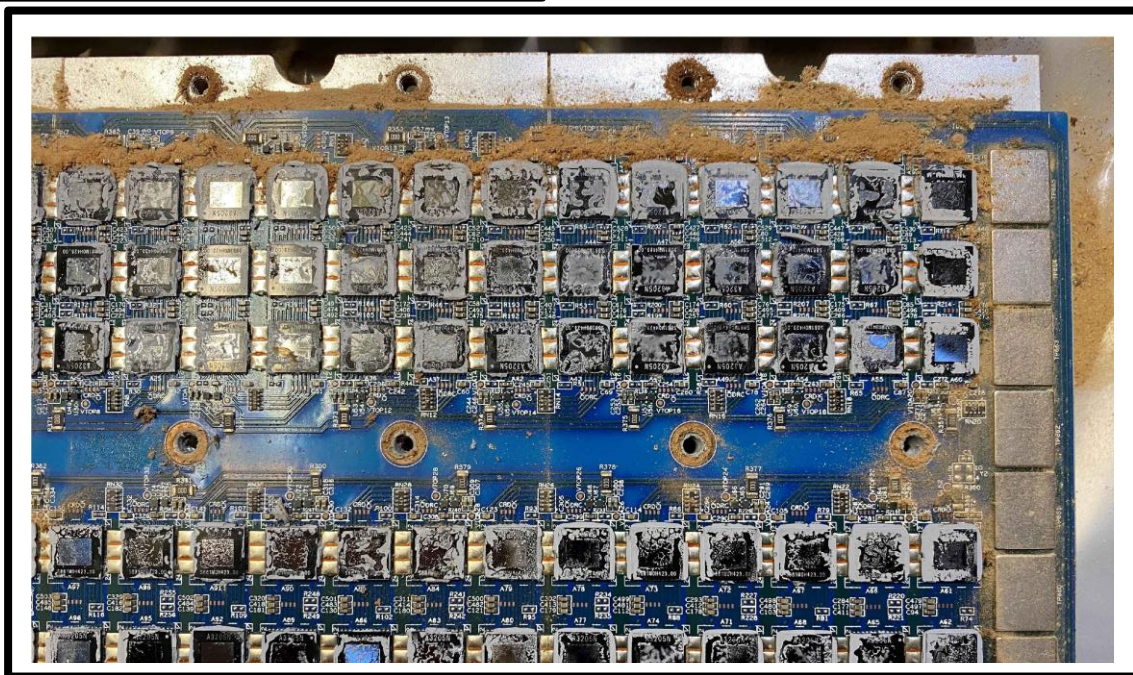
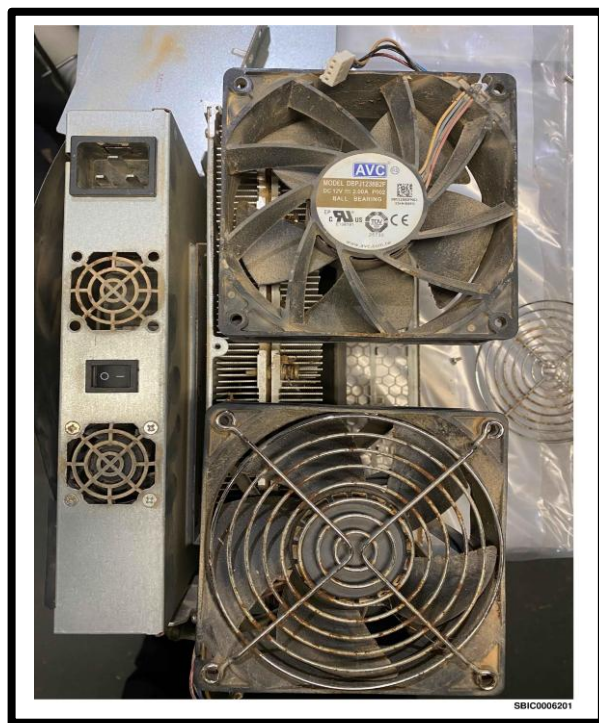
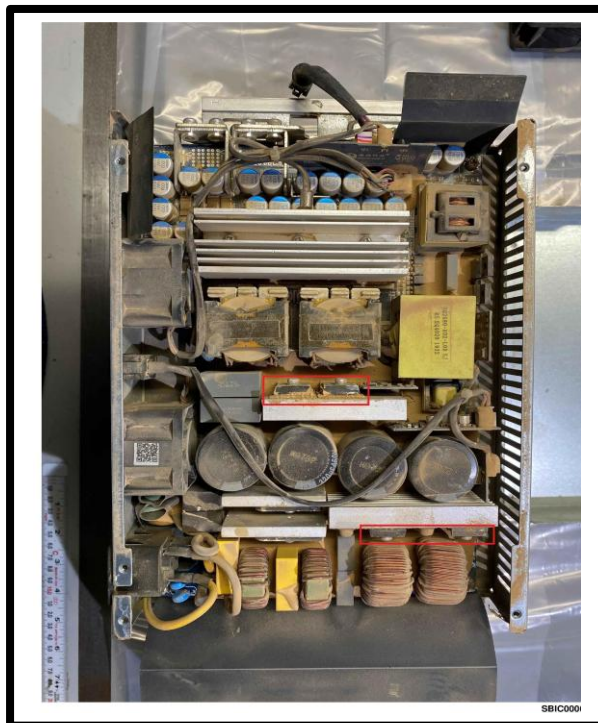
Product Valuation (Used) for the Canaan Avalon Miner A1041 Investment

Based on the pictures received in the amended complaint filed by SBI, there is no resale value for these used units after deployment. The environmental contamination was so severe that it even presents an OSHA hazard for any ITAD company or recycler taking on the project and they would assess charges to dispose of the material. It’s unfortunate because demand for used Crypto Miners like Canaan’s Avalon Miner A1041 during the pandemic was very strong and these units would likely have captured returns of \$500 or more at resale in June of 2021, equivalent to 66% or more of original cost which is much higher than the standard depreciation curve for Crypto Miners.





Effect of Data Center Contamination on Internal Components of Crypto Mining Machines



Tech Remarketers LLC * 2301 Plum Street Parkersburg, WV 26101

MSchuler@TechRemarketers.com * (940) 300-1749 Mobile

Michael Schuler, President & CEO



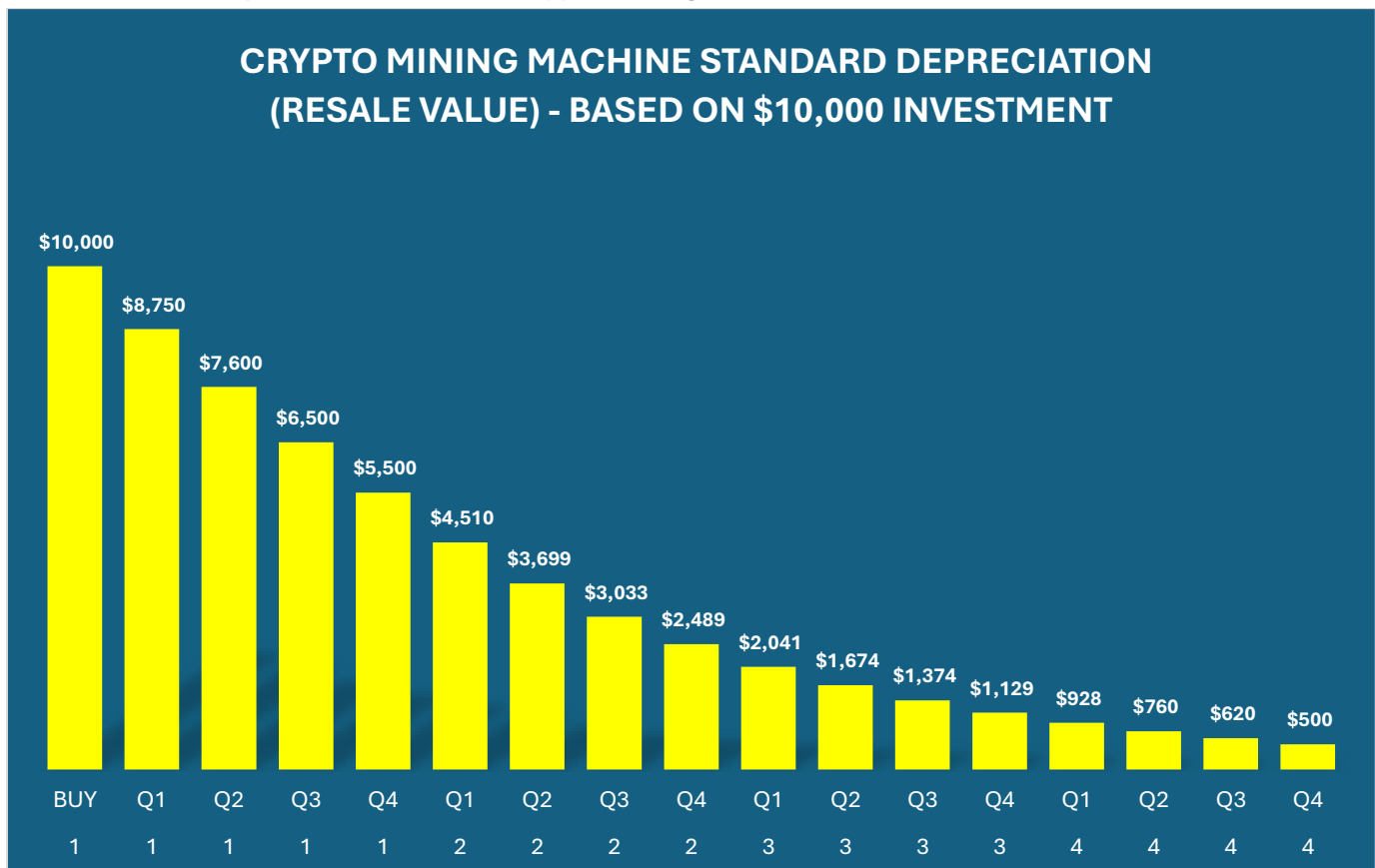
Useful Life of Crypto Mining Machines

The standard depreciation of Crypto Mining Machines ranges between 3 to 5 years, with an average lifecycle of four years. This can vary depending on the factors affecting the machine's useful life.

Factors Affecting The Useful Life of Crypto Mining Machines

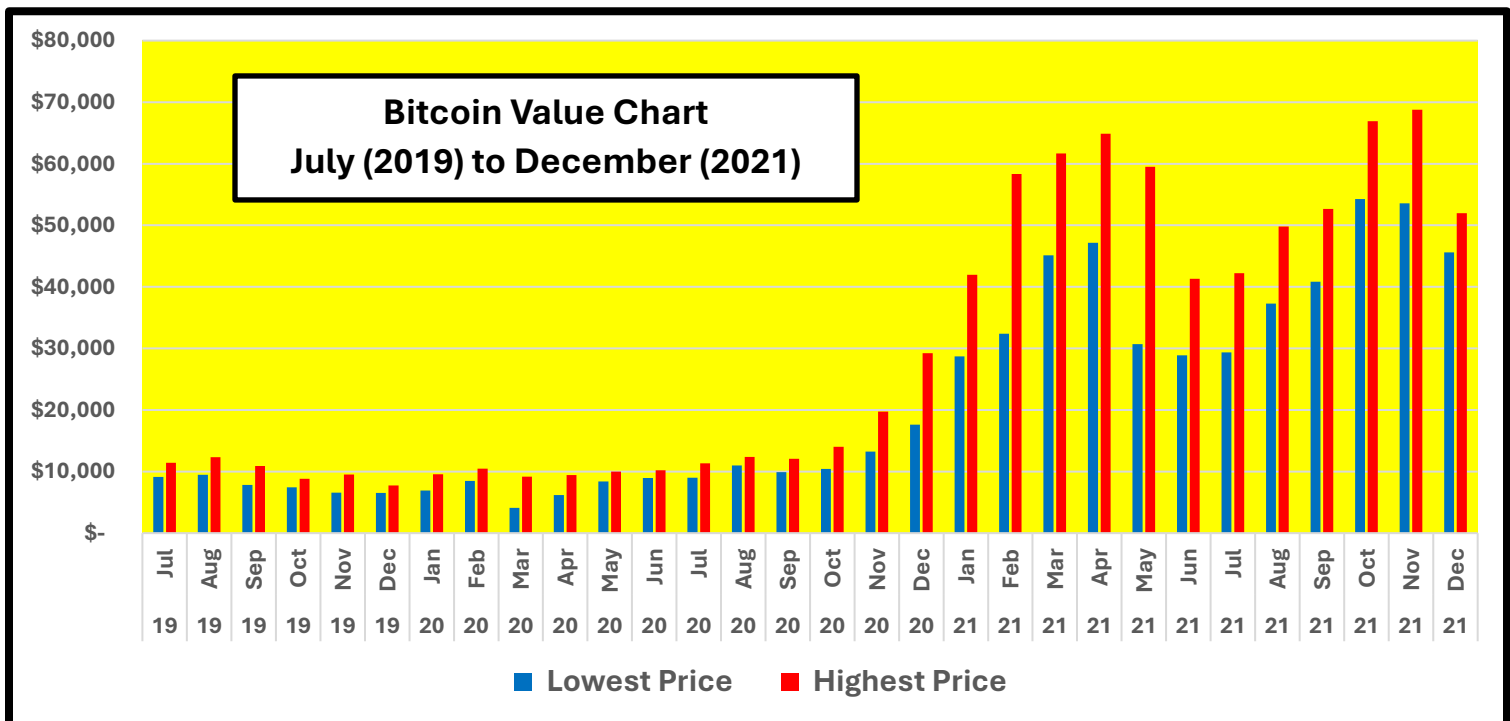
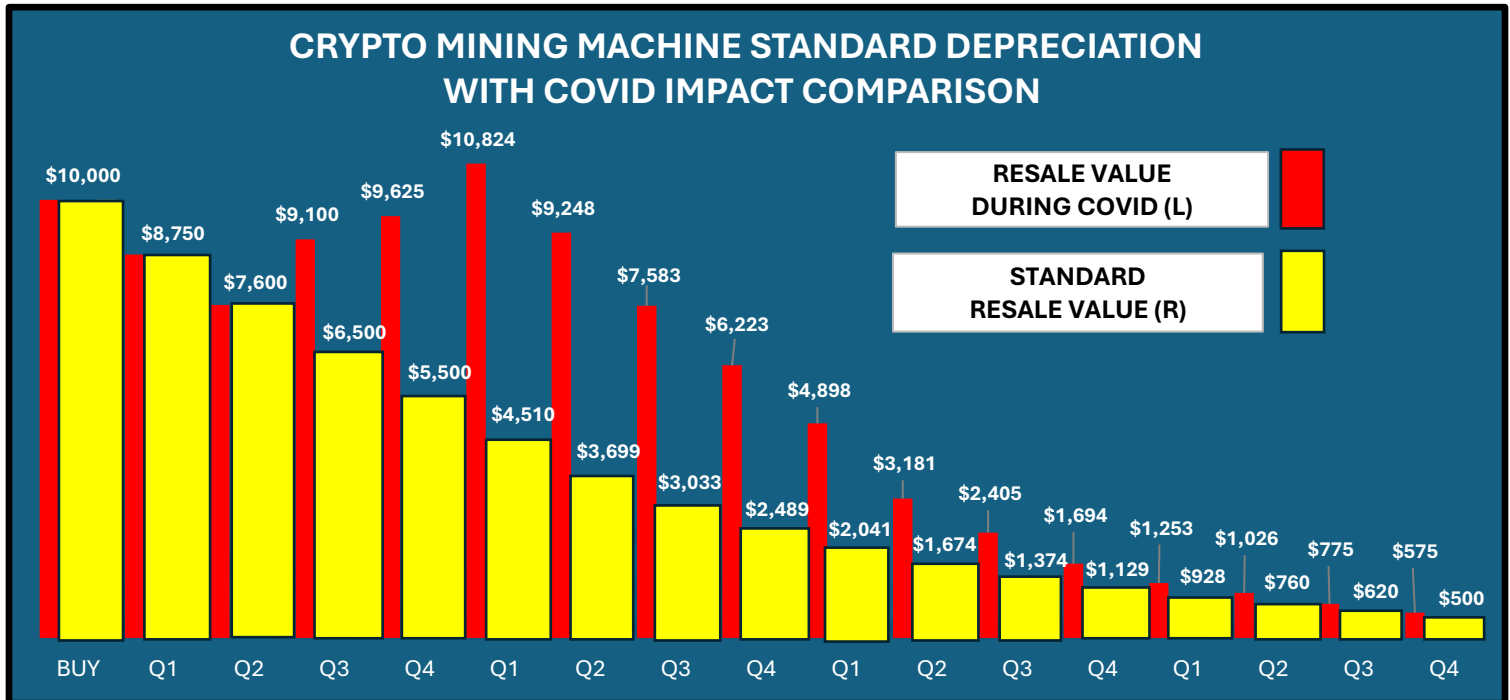
- Mining difficulty
- The cryptocurrency's market value associated with the crypto mining machine
- Energy costs
- Operational costs
- Usage intensity
- Environmental factors of the data mining facility
- ROI Performance Compared to New Technology (hash rates, energy use, daily profits)

Standard Depreciation Curve for Crypto Mining Machines





Comparative Resale Value of Crypto Mining Machines During COVID (Buy - Starts Q4 2019)





Product Costs for Compute Equivalency (740 PH/s) in 2021

Canaan AvalonMiner 1246

- **Hash Rate:** 90 TH/s
- **Cost:** Approximately \$5,000 each
- **Number of Units Needed:** 8,222
- **Total Cost:** \$41,110,000 [n] (Calculation – $8222 \times \$5,000 = \$41,110,000$)

Product Costs and ROI for Compute Equivalency (740 PH/s) in Current Market (March of 2025)

To achieve 740 Peta hash (PH/s) of compute equivalency, here are the top 3 data mining machines:

1. Bitmain Antminer S19 XP

- **Hash Rate:** 140 TH/s
- **Power Consumption:** 3,010W
- **Efficiency:** 21.5 J/TH
- **Cost:** Approximately \$11,000[1] * **Annual Profit:** Approximately \$2,369.85
- **Number of Units Needed:** 5,286
- **Total Cost:** \$58,146,000 (Calculation – $740\text{PH/s}/140\text{TH/s} = \sim 5286 \times \$11,000 = \$58,146,000$)
- **ROI:** 4.64 Years

2. MicroBT Whatsminer M50

- **Hash Rate:** 120 TH/s
- **Power Consumption:** 3,200W
- **Efficiency:** 26.7 J/TH
- **Cost:** Approximately \$10,500[2] * **Annual Profit:** Approximately \$1,952.75
- **Number of Units Needed:** 6,167
- **Total Cost:** \$64,753,500 (Calculation – $740\text{PH/s}/120\text{TH/s} = \sim 6167 \times \$10,500 = \$64,753,500$)
- **ROI:** 5.38 Years

3. Canaan AvalonMiner 1366

- **Hash Rate:** 130 TH/s
- **Power Consumption:** 3,250W
- **Efficiency:** 25 J/TH
- **Cost:** Approximately \$9,500[3] * **Annual Profit:** Approximately \$2,288.55
- **Number of Units Needed:** 5,692
- **Total Cost:** \$54,074,000 (Calculation – $740\text{PH/s}/130\text{TH/s} = \sim 5692 \times \$9,500 = \$54,074,000$)
- **ROI:** 4.15 Years



Top 3 Crypto Mining Machine Manufacturers from 2021 to 2024

Here are the top 3 manufacturers of crypto mining machines along with their annual revenues for 2021 and 2024:

1. **Bitmain Technologies Ltd.**
 - **2021 Revenue:** \$8-9 billion^[1]
 - **2024 Revenue:** Data not available
2. **MicroBT (Whatsminer)**
 - **2021 Revenue:** Approximately \$3 billion^[1]
 - **2024 Revenue:** Data not available
3. **Canaan Creative**
 - **2021 Revenue:** \$782.5 million^[2]
 - **2024 Revenue:** \$229.63 million^[3]

Canaan Creative – A Major OEM for Crypto Mining

The significance of the above data point confirms that Canaan Creative was well recognized as a high-demand Original Equipment Manufacturer (OEM) for crypto mining machines with a well-established record for producing quality equipment, at competitive prices. As indicated previously in this report, being a Major OEM in any industry, provides significant advantages for product resale by yielding stronger residuals throughout the lifecycle, as compared to more Generic (lower demand) OEMs. This recognition, whether in the PC industry or the Crypto Mining industry, provides investors peace-of-mind knowing that there are numerous buyers interested in their used products, when they decide to trade for newer equipment.

Rebuttal to Peters Report

Although Mr. Peters is a recognized expert and authority on crypto mining tracing and blockchain analysis, he is not an expert in technology product remarketing or secondary market product valuation. In paragraph 14 of his report, Mr. Peters references that the book value indicated on the Avalon 1041 was \$662 USD. Anyone in the ITAD (IT Asset Disposition) industry knows that “book value” is simply an accounting term with no bearing on actual market value at resale. He goes on to reference an e-mail dated June 2, 2021, between Mr. Tanemori and Carson Smith of SBIC in which they estimated a potential sale value of between \$1000 and \$1100 per unit. Their correspondence simply states that they were speculating about a potential resale value which occurred before the miners were removed from the Rockdale Facility and the extent of the environmental damage was discovered. No buyer had tendered a hard cash offer and it’s unlikely any would be forthcoming after seeing these devices in the compromised conditions caused by the environment at Whinstone’s host facility. As my product valuation chart on Page 18 of this report conveys, there was indeed an increased demand for these devices due to the supply chain challenges experienced during COVID



(2020 to 2022). It is therefore likely that SBIC could have recovered significantly more than the standard depreciation curve would yield (aka residual recovery) for their crypto miners if they had been deployed in a normal data center. It's even likely that a majority of SBIC's original investment could have been recovered at this late juncture of the lifecycle had the miners simply remained sealed "new" in their original shipping containers. However, those resale opportunities were negated the moment these units were unpacked and deployed into Whinstone US's host facility, where daily exposure to an open-air, unfiltered array of dust, clay, dirt, insects and increased exposure to heat, assaulted SBIC's crypto miners. The results are evidenced in pictures shared in this report and the associated videos prepared by the Kaboom team during their audit of the Rockdale facility. Accordingly, these machines would not have been candidates for standard product resale channels as few used equipment dealers have the facilities or capacity to clean, test and resell assets in these volumes or conditions. Additionally, the resale market for crypto miners was quite limited with only a few used equipment dealers focused on this vertical product line, and there's no evidence that any of those resellers had either sufficient market demand or the cash-on-hand necessary to conduct a major purchase of used machines two years into their short four-year lifecycle. Given the combination of the product's condition, the lack of viable resale components for harvesting, the performance deficiencies of these same components due to overheating, coupled with the age and limited resale channels for this type of product in these volumes and conditions, most ITAD companies would have been compelled to designate these machines as scrap.

Supplemental

On August 5th, I am scheduled to conduct a physical inspection of the SBIC miners where they are warehoused in Houston, Texas. I reserve the right to supplement this report following that inspection.

Report Summary

Speaking solely from the perspective of product resale value of the AvalonMiner A10 series crypto miners during the timelines specified of Q3 of 2019 to Q3 of 2021, either new or used, it's clear that there were significant opportunities missed to recapture SBI's multi-million-dollar investment. Had the new (unused and undeployed) miners been available to the secondary market in Q3 of 2020, they would have easily been resold for more than their original cost due to the impact of COVID and the increased value of Bitcoin. Further, if these same crypto mining machines were deployed into a hosting facility absent of the contamination exhibited at this facility and then made available for used equipment resale in July of 2021, they would have easily captured at least two thirds (\$500+) of their original (\$750) costs. Unfortunately, the contamination and thermal throttling on SBI's crypto miners and its components after deployment at Whinstone's facility, rendered them unsellable to the secondary market, negating over ten million dollars in potential value recovery. Finally, the sale of miners in Russia and Kazakhstan to The Computing Limited had no bearing on product valuation as this was a distressed sale driven by US sanctions imposed on Russia.



Key Timelines

- In early 2019, SBI visited and negotiated with several potential datacenters to host its mining equipment before ultimately deciding to enter into an agreement with Whinstone.
- In April 2019, SBI signed a \$30 million purchase order for 40,000 Avalon A10 mining machines from Canaan, Inc. (“Canaan”). Half (20,000) of those machines were sent to the Whinstone facility with the other half delivered to another datacenter facility in 2021.
- July 2019 – Whinstone and SBI entered into an agreement for Whinstone to host 20,000 cryptocurrency miners in Pyote, Texas. That agreement, however, fell through.
- On July 10, 2019, SBI and Whinstone entered into a hosting service agreement for a facility in Pyote, Texas. That agreement anticipated the commencement of operations in October 2019. Despite the parties’ agreement, SBI’s mining operations were delayed after Whinstone failed to secure sufficient electrical power for the Pyote facility.
- On October 24, 2019, Whinstone persuaded SBI to enter into a new agreement (the “Hosting Service Agreement”) by offering hosting space and management services at its facility in Rockdale, Texas.
- In late 2019, SBI delivered to Whinstone 20,000 A10-model mining machines along with \$3.4 million in power supply units (“PSUs”) (collectively, “SBI’s Equipment” or “SBI Equipment”). SBI also prepaid to Whinstone \$9,685,000 for power and fees to help Whinstone finance the final buildout of the Rockdale facility.
- In late June 2020, Whinstone began operation of a small number of SBI’s Equipment and operations continued to increase through August 2020. Whinstone’s failure to obtain sufficient electrical power and its additional failure to obtain certain permits and certifications necessary to operate at full capacity meant that Whinstone could not ramp up and operate SBI’s Equipment at full capacity.
- SBI only learned of Whinstone’s misrepresentation through press releases and SEC filings by Whinstone and its parent company, Riot Blockchain, in the latter half of 2021.
- December of 2022, SBI sells miners and PSUs to The Computing Limited for \$760,000. This sale for 20,000 miners and their attached PSUs, located at a data center in Russia, also included 2,400 (uncleaned) miners that originated from the Rockdale Texas facility and 4,790 new (surplus) PSUs, all located in Kazakhstan. This “liquidation sale” was necessitated due to US sanctions imposed on Russia, and all US computing technology companies doing business with Russia, due to Russia’s invasion and ongoing war with Ukraine.



Glossary of Terms

Break-Even Point: The break-even point is when the total revenue from mining equals the total costs.

Importance: It helps miners understand the minimum performance required to avoid losses.

Energy Consumption: This metric measures the amount of electricity used by mining operations.

Importance: Energy costs are a significant part of mining expenses, greatly impacting profitability.

Hash Rate: The hash rate is the speed at which a mining rig can solve the cryptographic puzzles required to validate transactions. A higher hash rate increases the chances of successfully mining a block and earning financial rewards in the miner's respective cryptocurrency. TH/s = 1 trillion hashes per second.

Mining Difficulty: Mining difficulty indicates how hard it is to find a new block compared to the easiest it can ever be. Higher difficulties mean more computing power is needed, affecting the profitability of mining.

OEM: Original Equipment Manufacturer

Payback Period or ROI (Return-on-Investment): The payback or ROI period is the time it takes for an investment to generate enough profit, factoring in operational costs, to cover the initial costs. Importance: A shorter ROI period is generally more desirable as it indicates a quicker recovery of the investment.

ROI or Return-on-Investment: Measures the profitability of mining operations. It is calculated by comparing the cost of mining (including hardware, electricity, and maintenance) to the revenue generated from mined coins. Calculation: $ROI = (Net\ Profit / Initial\ Investment) * 100$

Thermal Throttling: Thermal throttling on computer systems is a built-in safety mechanism where the ASIC, CPU or GPU reduces its clock speed or performance to prevent overheating and potential damage, often triggered when temperatures approach critical thresholds

Wet Wall or Evaporative Cooling Wall: A wet wall, also known as an evaporative cooling wall, is a type of cooling system that uses water evaporation to cool air and filter contaminants, often used in large facilities and data centers, where fans draw air through water-soaked pads, leading to a cooling effect.



Reference Documentation

Understanding Crypto Mining

1. Introduction to Crypto Mining - Crypto mining is the process by which new units of cryptocurrency are created, and transactions are verified on the blockchain.

How It Works: Miners use powerful computers to solve complex mathematical problems, which validate transactions and add them to the blockchain. This process requires significant computational power and energy.

2. Key Metrics in Crypto Mining

- Return on Investment (ROI): Measures the profitability of mining operations. It is calculated by comparing the cost of mining (including hardware, electricity, and maintenance) to the revenue generated from mined coins.
- Hash Rate: Indicates the computational power of a mining rig. A higher hash rate increases the chances of solving mathematical problems and earning financial rewards.
- Energy Consumption: Mining is energy intensive. Efficient energy use is crucial for profitability and sustainability. Metrics like energy consumption per hash (Joules per hash) help in assessing a mining machine's efficiency.

3. Impact of COVID-19 on Crypto Mining Supply Chain

Supply Chain Disruptions: The pandemic caused significant disruptions in the supply chain, particularly in China, where most mining hardware is manufactured. Lockdowns and reduced workforce availability led to delays in production and shipment of mining equipment. Increased Costs and Delays: The disruptions resulted in increased costs for mining hardware and delays in receipt of new equipment, impacting the overall efficiency and profitability of mining operations.

4. Return on Investment or Other Standard Measurements for Profitability of the Miners

Return on Investment (ROI): ROI measures the profitability of an investment by comparing the net profit to the initial investment cost. Calculation: $ROI = (\text{Net Profit} / \text{Initial Investment}) * 100$

Reference Links

- [Mastering Bitcoin Mining: Your Foolproof Guide to Calculating ROI](#)
- <https://bitcointalk.org/index.php?topic=5164326.0>
- <https://www.coindesk.com/markets/2019/06/25/wait-for-october-new-bitcoin-miner-demand-is-again-outstripping-supply>



Appendix

SBI supplied documents and media used by the Expert Witness to prepare this report.

Native Files

- Excel – SBIC0005997 – Multi-worksheet document for comparative performance of miners in two locations (Texas and Russia).
- Videos (4) – SBIC0006108, SBIC0006109, SBIC0006110, SBIC0006111

Images 001

- (107 text files) SBIC0005938 to SBIC0006044
- (143 picture files) SBIC0006045 to SBIC0006191
- (4) video files SBIC0006108 to SBIC0006111 were under Native > Video.

Kaboom Folder

- Kaboom Videos – (23 videos in MOV and MP4 format) – Kaboom 0000270 to 0000310
- Kaboom Pictures – (244 pictures in Adobe Acrobat) Kaboom 0000001 to 0000002, Kaboom 000016 to Kaboom 000060, and Kaboom 0000117 to 0000312

Chuck Byers Photos of Tear Down

- (13 Photos) SBIC0006192 to SBIC0006205

Sale of Miners and PSUs to The Computing Limited

- Sale Document for \$760,000 – SBIC0006421 to SBIC0006424
 - Russia Data Center Miners – 20,000 used units plus their attached PSUs
 - Kazakhstan Miners (from Texas) – 2,200 uncleaned miners plus 4,790 New PSUs
- BOLs and Packing Lists for Sale – SBIC0006425 to SBIC0006450

Other Documents Provided by SBI:

- 0011 – 2023.07.06 Pltf's Amd. Complaint FS
- 0022-2023.08.22 Signed Agreed Protective Order
- 56629 SBI Crypto Co., Ltd. V. Whinstone US, Inc. – Amended Complaint
- User Manuals (4) - Canaan AvalonMiner 1026, 1047, 1066 and 1066 Pro User Manual
- Canaan-00062 – Sales Contract (SBIC & Canaan Creative on mining equipment purchase)
- Global Semiconductor Chip Shortage during COVID (2020 to 2022) – Science Direct Doc.



Expert Witness – Michael Schuler, Tech Remarketers LLC

Expert Witness Background: No prior expert witness engagements in the last four years.

Published Papers – E-Scrap News Article (November 4, 2021) – [In My Opinion: 'Concierge' ITAD services present new opportunity](#)

Interviews - DotCom Magazines Entrepreneur Spotlight (30-Minute) Interview with Expert Witness <https://www.youtube.com/watch?v=FRUFI2hUDK0>

Presentations

Warranty Chain Management

- **(2013) From Horrors to Heroes** – How Big Data and Software are Transforming Warranty Management - <https://acrobat.adobe.com/id/urn:aaid:sc:US:036c5308-ced4-42b1-8910-768b6a9b2224>
- **(2014) An Out of Box Experience** – Better Management of Product Returns and the Secondary Market - [WCM 2014 MS - An Out of Box Experience](#)
- **(2015) Optimized Product Lifecycle Management** - <https://acrobat.adobe.com/id/urn:aaid:sc:US:4b1e4047-fbb7-4811-9927-257e14b2999a>

SPC Live Event

- **(2018) Optimizing Value Recovery in Product Lifecycle Management** - [SPC Live Event - Zero Waste e-Recycling - Optimizing Value Recovery in Product Lifecycle Management.pptx](#)

ITAD Summit

- **(2019) – Evolution in the ITAD Industry** - <https://acrobat.adobe.com/id/urn:aaid:sc:US:eb0b0668-5a5d-44ac-8925-0f083372305a>

NVDC Connect

\$60M Morgan Stanley SEC Fine & Multiple Class Action Lawsuits (Over 1 Missing Hard Drive) – VAR Services Presentation on Why Carefully Selecting your ITAD Vendor Matters –

<https://acrobat.adobe.com/id/urn:aaid:sc:us:1427dff2-7d60-4339-bdce-e38260c6821d>

Article in E-Scrap News - [Morgan Stanley \\$60M fine for ITAD mismanagement- E-Scrap News](#)